

3-A 100%

2-B  $\frac{3}{4}$  not 100%

1-C  $\frac{1}{2}$

0- less than  $\frac{1}{2}$

Test Tuesday

Ch. 1

(58)

$$\sin x = -0.2$$

 $\sin^{-1}$ 
 $\sin^{-1}$ 

$$x = \sin^{-1}(-0.2)$$

$$= -0.2 \text{ radians}$$

$$0 \leq x < 2\pi$$

$$\pi + 0.2 \text{ rad}$$

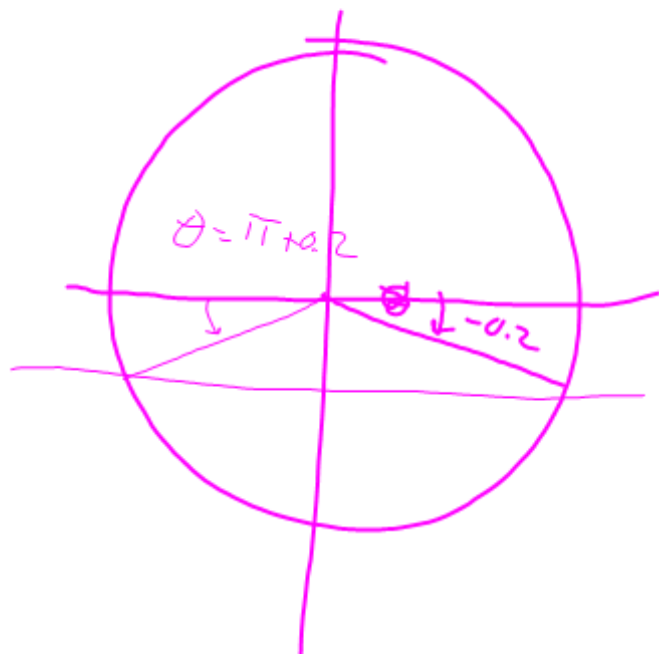
$$2\pi - 0.2 \text{ rad}$$

$$-\infty < x < \infty$$

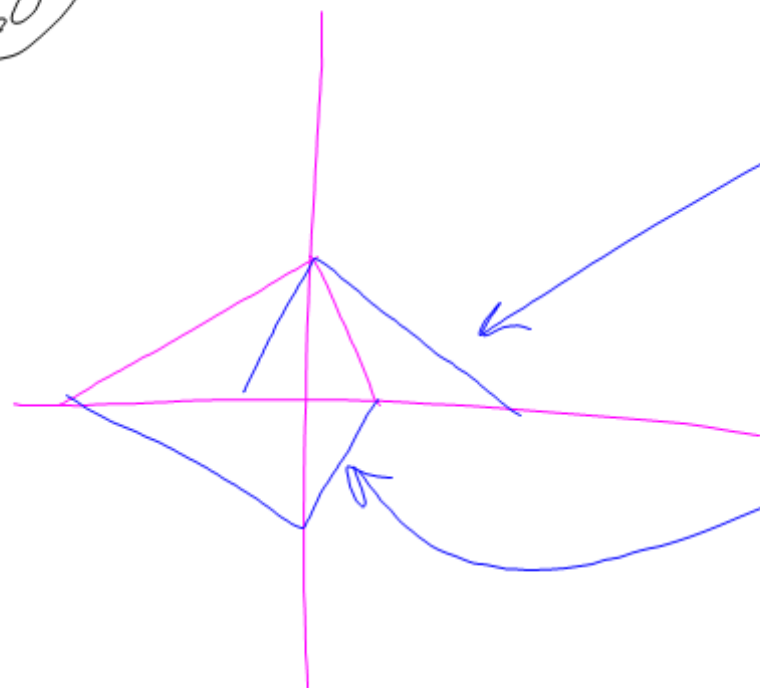
$$(\pi + 0.2) + 2k\pi$$

 $k = \text{integer}$ 

$$(2\pi - 0.2) + 2k\pi$$



(60)



$$y = f(-x) \quad \text{reflects } y\text{-axis}$$

$$y = -f(x) \quad \text{reflects } x\text{-axis}$$

$$y = -2f(x+1) + 1$$

$$y = 3f(x-2) - 2$$



(70)

$$f(x) = 1 - 3\cos(2x)$$

$$\text{Domain: } (-\infty, \infty)$$

$$\text{Range: } [-2, 4]$$

$$\text{Period: } P = \frac{2\pi}{b}$$

$$P = \frac{2\pi}{2} = \pi$$

even

$$0 = 1 - 3\cos(2x)$$

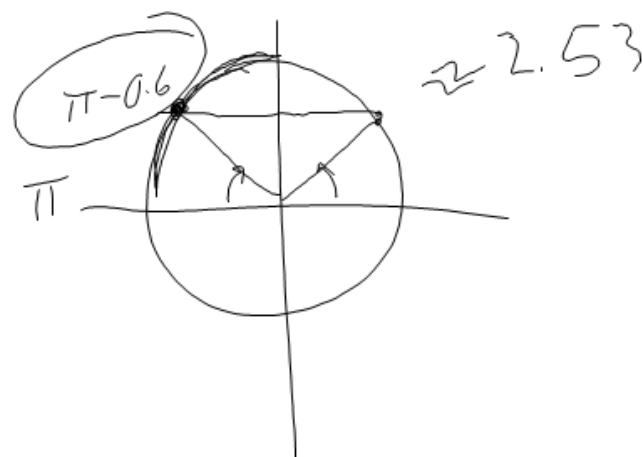
$$3\cos(2x) = 1$$

$$\cos(2x) = \frac{1}{3}$$

$$2x = \cos^{-1}\left(\frac{1}{3}\right)$$

$$x = \frac{\cos^{-1}\left(\frac{1}{3}\right)}{2}$$

$$x = 0.6 \text{ rad.}$$



(65)

$$y = ab^x$$

$$y = 1500(1 + 0.08)^x$$

$$\frac{5000}{1500} = \frac{1500(1 + 0.08)^x}{1500}$$

$$3.\overline{33} = 1.08^x$$

$$X = \frac{\log(3.\overline{33})}{\log(1.08)} \approx 15.6, \text{ (16 yrs)}$$

# Sect. 1.1

$$\begin{array}{cc} \bullet \Delta x & + \Delta y \\ \downarrow & \downarrow \\ dx & dy \\ x_2 - x_1 & y_2 - y_1 \end{array}$$

$$\text{slope} \frac{y_2 - y_1}{x_2 - x_1} = \frac{\Delta y}{\Delta x}$$

• point-slope

$$y = m(x - x_1) + y_1$$

$$\frac{1}{2}(x - 3) + 4$$

• slope-int

$$y = mx + b$$

• vert + horiz. lines

$$x =$$

$$y =$$

• y-int + x-int

$$x = 0$$

$$y = 0$$

#45  
Sect. 1.1

• regression

stat  $\rightarrow$  calc  $\rightarrow$  LinReg

## Sect. 1.2

- Function - definition  
(vert. line) <sup>only 1 y per</sup> test <sub>every x</sub>

- p. 14 viewing skills

- piecewise functions

$$y = \begin{cases} x^2 & x \leq 0 \\ x+1 & x > 0 \end{cases}$$

- absolute value

$$|x| = \begin{cases} -x & x < 0 \\ x & x \geq 0 \end{cases}$$

- Composition of functions

$$f(g(x)) = (f \circ g)(x)$$

- Try #55 in 1.2

HW

Sect. 1.1 #<sup>\*</sup>2, 11, 12, 32, 36, <sup>\*</sup>40, <sup>\*</sup>41, <sup>\*</sup>45, <sup>\*</sup>57

Sect. 1.2 # <sup>\*</sup>1, <sup>\*</sup>3, <sup>\*</sup>4, <sup>\*</sup>6  


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 Quick Review, 20, 35, <sup>\*</sup>55